NAVAL POSTGRADUATE SCHOOL
Monterey, California

THESIS

ECONOMIC INTELLIGENCE OF THE MODERN STATE

by

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March 2001

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REPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704-0188

1. AGENCY USE ONLY *(Leave blank)*	2. REPORT DATE March 2001	3. REPORT TYPE AND DATES COVERED Master's Thesis

4. TITLE AND SUBTITLE
Economic Intelligence Of The Modern State

5. FUNDING NUMBERS

6. AUTHOR(S) Levytskyi, Valentyn

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
Naval Postgraduate School
Monterey, CA 93943-5000

8. PERFORMING ORGANIZATION REPORT NUMBER

9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)

10. SPONSORING / MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES
The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government

12a. DISTRIBUTION / AVAILABILITY STATEMENT
Approved for public release; distribution is unlimited.

12b. DISTRIBUTION CODE

13. ABSTRACT

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The second goal of the thesis is the analysis of modern schools of intelligence and classifications of intelligence by levels and components. Next, the work analyzes modern economic intelligence exploring its structure and activities. Then the work compares the intelligence process of public and private economic intelligence.

The third goal is to analyze the economic intelligence system of the modern state by using the economic intelligence system of Canada, France, Germany, Japan, Russian Federation, and United States as models for an economic intelligence system. Furthermore, the work points out the principal features of each system.

Finally, the research offers conclusions about the use and development of economic intelligence for the state.

14. SUBJECT TERMS Economic Security, Economic Intelligence, Economic Espionage, Industrial Espionage, Competitive (Business) Intelligence, Economic Intelligence System.			15. NUMBER OF PAGES 92 16. PRICE CODE
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT UL

NSN7540-01-280-5500

Standard Form298 (Rev. 2-89)
Prescribed by ANSI Std. 239-18

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ECONOMIC INTELLIGENCE OF THE MODERN STATE

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Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF ARTS IN INTERNATIONAL SECURITY AND CIVIL-MILITARY RELATIONS

from the

NAVAL POSTGRADUATE SCHOOL
March 2001

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ACKNOWLEDGEMENTS

The author wants to thank Professor Robert E.Looney and Professor Thomas C.Bruneau for their guidance in performing this research.

I dedicate this work to my wife, Yevheniia, daughter, Olga, and son, Victor. Their support and patience helped me tremendously.

I. INTRODUCTION

This research investigates the issue of economic intelligence (EI). It covers the end-of-the 20th century. The need for conducting EI is based on the necessity of providing economic security for the state. The research uses open sources of information. The work focuses on both the state and private economic intelligence. The main objectives of the thesis are to define the justification for using economic intelligence by the state, estimate the principal goals of economic intelligence, and identify the problematic areas of EI. The classification of EI is another goal because no clear description of types, levels, targets, and process of EI exist. All activities of EI are presented in environments that have economic intelligence system (EIS). Since there are some patterns of different economic intelligence systems, the analysis of the existing EIS was done to assess systems. The research proposes the areas of the state's concern about economic intelligence. The role of the modern state is dominant in organizing economic intelligence systems. It must set the rules for conducting EI and participating in this process of competitive intelligence. The state is also responsible for the decision to share information with the private economy.

The first chapter, "Economic Intelligence is the New Challenge of the XXI Century," emphasizes the importance of the subject of research by analyzing the problem of economic security and the role of EI in security. It describes defensive and offensive strategies of intelligence and shows the possible priorities for EI. It analyzes the possible approaches of EI, which are analysis, defensive, and offensive strategies. It explores the

arguments for involving the state in economic intelligence activities. It also discusses the benefits and weaknesses of economic analysis and how it differs from EI.

The second chapter "Economic Intelligence and its Classification" deals with research on EI. It considers the classification of modern schools of intelligence, levels of activities, and its components. Next, the chapter proposes a typology of EI and classifies EI by the levels of its activity. This chapter compares the economic intelligence process of the state and private intelligence organizations.

The third chapter, "Analysis of State's Economic Intelligence Systems" investigates the elements of the intelligence system. The approach to the economic intelligence system is made based on the information revolution. The chapter explores the comparison of national economic intelligence systems, highlighting the differences state's positions on EI. The analysis shows that cultural traditions, the position of the state toward the control of its economy, and development of intelligence community are important factors in creating an economic intelligence system. These factors are important in choosing the national economic intelligence strategy. This chapter suggests that the state should support the development of state and private EI institutions. Finally, the educational system is shown to be an important element of the economic intelligence system.

II. ECONOMIC INTELLIGENCE IS THE NEW CHALLENGE OF THE XXI CENTURY

The end of the twentieth century brought a new challenge to national security. The collapse of the Berlin wall in 1989 changed the balance among world powers. The issue of national security is now more connected to the economic strength. The condition of a state's economy may be more vital than its military capability. There is a swing from a political-military emphasis of the intelligence mission to a political-economic one. Peter Schweizer supports the conclusion of Maynard Anderson, of the Defense Science Board at the Department of Defense, that:

> [T]here is a "new reality," in which the advancement and application of the technology has become globalized, effectively replacing territory as the new determination of world power. Success at exploiting new technologies for economic and military purposes, as concludes the board, will determine the relative power of the competing states. The relative standing of the ex-Soviet Union and Japan in the world-power equation is particularly instructive in this regard. In the end, territorial expansion did not offer the Soviet Union staying power. Its economy was in utter shambles. In contrast, Japan is an economic powerhouse with limited military power. Moreover, increasingly Japan has a larger say in international affairs by virtue of its economic power, despite the fact that the Soviet Union possessed a population and a land mass many times the size of Japan's and enormous nuclear potential.[1]

The technology, communication, and computer revolutions show "the global economy" as evidence of the end of the twentieth century. The global economy erased any differences, as well as barriers, between the national economies and the global economy. As a result, many national economies became mutually linked and dependent

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[1] Schweizer, Peter, *Friendly Spies: how America's allies are using espionage to steal our secrets* (New York: The Atlantic Monthly Press, 1993), 30. The economy of Japan now suffers from internal economic malfunctions, but it has enormous savings that are invested throughout the world.

on each other. The world markets, such as New York, Chicago, Tokyo, London, Munich, have dictated the rules of the economic game. The transnational corporations enforced the process of the globalization of the economy, but they did not eliminate economic crime and corruption. For example, economic losses for U.S. based companies are about $260 billion a year and $140 billion in overseas operations.[2]

The actual development of modern EI started after World War II. The Japanese, Soviet, and French intelligence did more than other intelligence services in developing this branch of intelligence. Snyder says that "three chief offenders are Russia, which is preparing an economic spying blitz, Japan, which basically stole the United States market share in the microchip industry in the early 1980's, and France, a strong diplomatic ally that is very aggressive in its espionage efforts, having been known to deploy agents to search the briefcases of United States businessmen."[3] The up-to-date statistics indicate that economic espionage is growing. Thus, in the United States the FBI, in 1997, investigated about 800 cases, twice the number it was in 1994. This growth is a big issue in counterintelligence activities.

As a result of the new threat, the U.S. intelligence community has had to rearrange its forces according to the current situation. The same trends are evident for other states. Schweizer says, "the intelligence community must redefine itself and its mission to meet

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[2] Diane C.Snyder, *Economic Intelligence in the Post-Cold War Era: Issues for Reforms.* Available [online]: http://www.fas.org/irp/eprint/snyder/economic.htm/; accessed July 15, 2000, p.1.

[3] Diane C.Snyder, *Economic Intelligence in the Post-Cold War Era: Issues for Reforms.* Available [online]: http://www.fas.org/irp/eprint/snyder/economic.htm/; accessed July 15, 2000, p.1.

the new challenges facing the United States, or it risks dramatic cuts or even extinction."[4] Similar processes are common for many intelligence communities around the world.

A. ANALYSIS OF CONTEMPORARY ECONOMIC INTELLIGENCE IN THE POST-COLD WAR PERIOD

This chapter analyzes open sources economic intelligence. The analysis will start with describing economic security and the role of EI as the means of enforcement of the state's economic security (ES). The analysis, using the works and opinions of A. Arbatov, D. Deconcini, N. Galvan, G. Hastedt, J. Nolan, S. Porteous, D. Snyder, R. Woolsey, and P. Zelikow, sets clear view of the role of EI in the modern state. First, it uses the positions of politicians, intelligence professionals, writers, and scientists dealing with EI, which establish a base for the possible use of EI. Second, the chapter describes EI as the type of human and social activity that creates a strong base for understanding the core of EI activities. It gives the classification of types and levels of intelligence. Additionally, the research points out issues that were not covered, such as possible cooperation of the state's EI services, and the openness of economic data in the time of war. Finally, this chapter discusses the different cultural approaches to the EI issue and their impact on the EI system of a state.

B. ECONOMIC SECURITY AND ECONOMIC INTELLIGENCE

The 1990's attracted much attention to the economy because of increased economic interdependence of state economies and the high level of global competition.

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[4] Schweizer, Peter, *Friendly Spies: how America's allies are using espionage to steal our secrets* (New York: The Atlantic Monthly Press, 1993), p.284.

These developments are major reasons for contemporary competition among world powers. Thus, the national economies require a new conception of the governmental involvement in the economic area. It requires correct and up-to-date coordinated economic policies of government. George W.Bush, President of United States "had asked his national security adviser and his chief of economic adviser... to 'share a desk' that would work to coordinate the United States' foreign policy objectives with its economics strategy."[5] The position of George Bush points out how dependent and interlinked the state economy and national security are. The epoch of Cold Peace increased the role of economy so much that the situation could not be improved without governmental actions. Many states see the possible solution in improving their economic security by using not only regular controlling tools, but also intelligence and counterintelligence measures. The issue of economic security and EI is discussed more in the United States than in other states. There are many positions on the role of EI as the key element in enforcing the state's ES. The economic intelligence in the United States is more open for study than others. The United States involvement in EI started with a 1949 review study of the 1947 National Security Act. Furthermore, the creation of the Office of Research Reports in 1949 had goals for collecting and analyzing economic information. In 1951, the National Security Council tasked the CIA and other government offices with the responsibility of providing it with foreign economic intelligence. Now, however, according to Philip Zelikow, "the greatest concentration of analytical expert on international economic issue

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[5] David E.Sanger, *Bush to Add Economists to National Security Staff,* New York Times Service Wednesday, January 17,2001. Available [online]: http://www.iht.com/cgi-bin/generic.cgi?template=articleprint.tmplh&Articled=78/; accessed January 16, 2001, p.1.

in the federal governments resides not in any of the executive department, but in the Central Intelligence Agency."[6] He says that one-third of analysts in the CIA are working on economic issues. He says the next priorities of EI are the following:

- Maintaining economic files on states
- Forecasting of macroeconomic development of state and its policy
- Checking the effects of the economic sanctions
- Monitoring debt problems
- Observing financial markets and financial activities of financial institutions
- Uncovering unfair business practices.

The U.S. President and Congress, with support of scientists and intelligence professionals, heavily investigated this phenomenon in the 1990's making appropriate decisions to increase national ES. For example, R.James Woolsey, the first Director of Central Intelligence of President Clinton's administration, said

> Economic security takes its place among the central issue of American foreign policy.... This does not mean that we are in the business of spying on foreign business to give their secrets to American companies. But it does mean that we bring foreign bribery, for example, to attention of the White House and State and Commerce Departments.[7]

The state's economic security is the system of state activities supporting constant, fast, and efficient development of the national economy. "The role of intelligence services is in protecting and pursuing a state's economic and commercial interests of major

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[6] Philip Zelikow, *American Intelligence and the World Economy, in From the Cold: The Report of the Twentieth Century Funds Task Force on the Future of U.S. Intelligence* (New Yourk: Twentieth Century Fund Press, 1999), p.61.

[7] R.James Woolsey, *Intelligence Quotient: The Mission of the CIA in a New World*, Harvard International Review, 1994, pp.34-37.

interests, particularly the manner by which Western powers have begun to approach this issue since the end of the Cold War."[8] It has to maximize the use of national comparative advantages, such as location for Singapore or cheap labor in the case of the Chinese, and secure its economy from any adversary action that can cause the loss of advantages. For example, Japanese economy and its legal base make it difficult to start any kind of business within its national territory. Besides this, the national culture of Japan promotes the consumption of national products.

The term of the national security system is intangible because it is difficult to present it. The ES system is based on the existing state's institutions of state power and their elements, such as the Treasury Department, Commerce Department, Economic Departments, Custom Agency, Internal Revenue Service, and Economic Police. The name of the agencies, departments, and directorates can vary, but all of them are involved in economic activities from establishing or initiating the legal issues to executing the law, orders, and guidance. There are different approaches for measuring ES. The main goals of the economic security system are achieving stable economic growth of the national economy and a high quality of life for its citizens. Economic security as the element of the state security system requires informational support not only from the feedback channels, but also from the analytical institutions and intelligence as well. Therefore, ES requires support that can be realized by EI. Recently, the issue of EI was not so critical because of the low level of economical globalization and specialization. Potter says that

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[8] Samuel D.Porteous, "Economic/Commercial Interests and the World's Intelligence Services: A Canadian Perspective," *International Journal of Intelligence and CounterIntelligence*, Volume 8, No3, Fall 1995, p.276.

"a paradox of globalization the increased competitiveness of firms on a global scale has forced nation-states to reconsider the structure of their national economics intelligence systems, their domestic legal regimes, and the mandates of their intelligence services."[9]

There are two types of intelligence strategy. One is defensive, and the second is offensive. The state is responsible for choosing the intelligence strategy and its realization. Many factors influence the choice of the strategy, such as socio-political organization of state, culture, internal and external legal base, and economic values. These factors define the state's decision on the issue of the mandate for EI. The mandate is the legal decision of the state on conducting EI. It sets the base for establishing the agenda and accepting the methods of EI. For E. Potter, two elements of state economy, such as public and private agents are very important for establishing and conducting EI. He says that EI has had enormous impact on the policy-making process and effectiveness of EI for national economy. He uses the argument of Samuel Porteous about two problematic issues of EI. First, Porteous says that it is necessary to integrate EI into the state policy-making process. The second problem concerns the dissemination of the economic intelligence to the private sector of economy in which most of the states did not make a final decision on the distribution of the state's EI resources to the private sector.

The problem of economic security is under constant control of any state. Each branch of the state tries to do the best in developing and conducting EI. The United States Senate, for instance, works under the issue of EI too. According to the Senator Dennis DeConcini (D., Ariz.), the chair of Intelligence Committee, the state has to support and

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[9] Evan H.Potter, *Economic Intelligence and National Security*, (Carleton University Press, 1998), p.2.

strengthen the international position of its industry by all appropriate means, including the use of intelligence, governed by the following principles:

- The intelligence community should continue to support governmental requirements and not attempt to satisfy private ones.
- The intelligence community should refrain from activities that would prompt retaliation.
- The intelligence community should continue to focus on non-public information.
- Intelligence should be defensive in nature and be applied systematically and evenhandedly.
- Offensive measures should not be ruled out but kept as an option when all other efforts fail.

These principles do not include the issue of timeliness and permanence that are common for any kind of intelligence.

Next, the Senator explained his vision of the preferable areas of economic intelligence that coincide with the position of many scientists, intelligence professionals, and politicians:

- Collection of information on unfair trade practice.
- Monitoring trade agreements and international control regimes.
- Providing information to government agencies.
- Making satellite imagery commercially available to U.S. business providing counterintelligence support.[10]

[10] Dennis DeConcini, "The Role of U.S.Intelligence in Promoting Economic Interests", *Journal of International Affairs* 48, 1994, pp.39-57.

EI may contribute to maintenance of the state' ES. There are three possible functions of EI that are more useful than others: economic analysis, defense intelligence, known as the counterintelligence, and offensive intelligence. Robert Galvan defines clearly each function of EI activities. First, economic analysis (EA) is more open and accessible for both governmental and private organizations. It consists of the statistical data that covers all economic aspects. "This function, to be useful, must continue to be tailored to the specific needs of U.S. policymakers and foreign businessmen, to allow them to stay abreast of the latest developments in economics and technology."[11] Second, the intelligence community is more capable of conducting defensive (counterintelligence) activities. This function "is not only the least controversial area of economic intelligence, but a general consensus regarding its possible use has already developed." (R. Galvan, 356) The methods and sources of EI are not opened to the public and have to wait for legal decision. Galvan argues that IC should provide effective help to U.S. companies in their defensive actions.

Third, offensive activities and industrial espionage did not get "widespread support for development of an offensive economic capability" in North America. (Galvan, 359) Galvan offers these assumptions based on the Northamerican cultural norms. On the other hand, the offensive EI is preferred by other cultures. Japan, German, and French actively use it. Not only is EI popular because of the cultural reasons, but also because of the lack of relative advantages in the labor force, capital, natural resources, and technologies that can make the state use EI. Besides the ethical dilemma, the

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[11] Robert N.Galvan, "The Role of American Intelligence in The Global Economy," *International Journal of Intelligence and CounterIntelligence*, Volume 8, No3, Fall 1995, p.355.

offensive EI can severely damage not only neighbors' economies, but also the economy of the state that conducts EI. Next, Porteous says that EI, which supports decisions of policymakers on economy, "is generally accepted as a legitimate function of national intelligence services. Related intelligence activities that go beyond the mere collection of information and aim directly [to] influence events either at macroeconomic or corporate level is understandably more controversial."[12]

Economic security (ES), as a term, is a very broad definition that is often characterized by lack of coherent terminology. Porteous' definition of ES is more complete in covering all areas of this issue.

> Economic security is the maintenance of these conditions necessary to encourage sustained, long-term relative improvements in labor and capital productivity and thus a high and rising standard of living for a nation's citizens, including the maintenance of fair, secure and dynamic business environment conducive to innovation, domestic and foreign investment and sustainable economic growth.[13]

The role of EI, according to S.Porteous, is secondary in maintaining the state's ES. Despite the secondary role, EI has to assist "in the maintenance of a fair, secure and dynamic business environment that is intelligence community's contribution to economic security is felt." [14]

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[12] Samuel D.Porteous, "Economic/Commercial Interests and the World's Intelligence Services: A Canadian Perspective," *International Journal of Intelligence and CounterIntelligence*, Volume 8, No3, Fall 1995, p.277.

[13] Samuel D.Porteous, "Economic Espionage: Issue Rising from Increased Governmental Involvement with Private Sector," *Intelligence and National Security*, Volume 9, October 1994, No4, p.736.

[14] Samuel D.Porteous, "Economic Espionage: Issue Rising from Increased Governmental Involvement with Private Sector," *Intelligence and National Security*, Volume 9, October 1994, No4, p.736.

The issue of economic security can be also divided into a pure economic analysis, and scientific and technological intelligence. All these elements are quite different in their nature, but they are mainly elements of EI. They can be mixed, and cannot exist separately. Therefore, they produce and add some value to economic security by enriching EI. During the Cold War, economic analysis was dominant in the U.S community, while scientific and technological intelligence was dominant in the former USSR, France, and Japan. Today, Russia continues restructuring its IC. According to Alexey Arbatov, Deputy Head of the Parliamentary Commission on Defense and National Security of the Russian Federation, President Putin can enforce the role of state intelligence on the issue to enforce Russian economic security.[15]

Glenn Hastedt proposes four factors that support the involvement of the state intelligence in the economic area. First, EI, a complex activity of analytical process, requires the collection of information and data that is analyzed to create intelligence. The state has all the means and trained personnel to provide the state with qualified economic intelligence. Second, "questions [of EI] are not self-defining. They are prone to conflicting interpretations over what to look at, how to measure what is observed, what questions to ask of the information collected, and how to interpret that information."[16] There are different approaches to measure economic performance. They can differ in data, but most of them can give similar results on general issues, such as the growth of the GNP, debt, and population. An analysis is limited by term that usually covers 2-5 years to

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[15] Answer received during briefing at NPS, September 2000.

[16] Glenn Hastedt, "Seeking Economic Security Through Intelligence," *International Journal of Intelligence and Counterintelligence*, Volume 11, No4, Winter 1998-1999, p.389.

forecast. For example, bad statistics is a common feature for many poor countries having "...poor statistical services; data from certain sectors... are the worst of all."[17] An analysis is highly sensitive to statistics. Third, EI deals with

> puzzles and mysteries. Answers to puzzles exist and can be found through the accumulation of information. Mysteries have no true answers. Gathering and analyzing information helps analysts frame the answers, but there is never finality to them. Some element of doubt or uncertainty will always continue to exist.[18]

The EI process can exist in linear and circle mode. In many cases, it is the circle model of intelligence process, because it requires the constant monitoring of economic data and analysis, the opinion of experts working under issue of economic analysis and forecasting. Fourth, there is the problem of relations between consumers of EI and analysts. Consumers of EI have different goals and vision of EI; therefore, they demand different types of intelligence. For example, the Treasury and Commerce Departments cannot be satisfied with similar EI, so they establish their own requests on economic intelligence. They also have their own intelligence services that conduct the analytical and statistical surveys.

EI differs from other types of intelligence. EI acquires the information mostly from open sources. According to G.Hastedt, clandestine reports only occupy third place based on the importance of intelligence reports. The open sources and overt reports contain most of the valuable information. The high level of openness of the economic

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[17] Malcom Gillis and others, *Economics of Development*, 4th edition, New York, 1996, pp.36-37.

[18] Glenn Hastedt, "Seeking Economic Security Through Intelligence," *International Journal of Intelligence and Counterintelligence*, Volume 11, No4, Winter 1998-1999, p.389.

information gives access for both consumers and analysts. The lack of time is the reason why EI should be used to help policymakers in using such broad economic information.

> Policymakers and planners do not ... have the time to sift through the mass of material that must be reviewed and digested. ...The finished product of the analytical organization puts the information in context, points out its significance, and projects those judgments into the future.[19]

Such openness decreases the need for qualified collectors of intelligence. The current inflow of economic information is perfect, but the question is will economic information become so open in wartime? There is no simple answer to the question. In case of a threat, the state will start to enforce its security measures for protecting itself against any hostile action, and tremendously cut the informational outflow. Therefore, the economic data and critical information will not be accessible through open sources. In wartime, informational hunger can be compensated partially by theoretical modeling and deducing, but it cannot support the decision-making process.

There is another problem with the openness of economic information. It makes EI different from others. Hastedt looks at three factors: first, there is a high level of competition among producers of EI, such as governmental and non-governmental. This is a delicate issue because many governmental intelligence professionals continue their careers in private intelligence organizations after retirement or even before. "Talented economic analysts are in demand in the private sector. They are hired away from CIA to do lucrative private work. Twenty percent turnover a year among trained economists is

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[19] Scott D.Breckenridge, *The CIA and U.S.Intelligence System, Boulder* (CO: Westview Press 1986), p.154.

not uncommon."[20] The high level of outflow of economic analysts from CIA is a good example of this problem. Second, the politicians are more interested in political and military intelligence, while business leaders – in EI. Thus, EI needs to stimulate the attention of policymakers. Politicians need more time to readjust their demands for economic intelligence. Third, the existing economic policies create some obstacles for dissemination of economic intelligence. Nowadays, the higher demands from private enterprises stimulate the growth of competitive intelligence. For example, the Society of Competitive Intelligence Professionals (SCIP) grew from 2,422 members in 1994 to 6,700 in 1988.[21] The issue of sharing the governmental EI with private business is not easy, and will be discussed later. Therefore, "economic intelligence has multiple masters who are likely to have differing definitions of the problems and time frames within which to solve them."[22]

Glenn Hastedt defines the focus of EI 'is on risk arising from marketing practices, competition, the availability of inputs, and a macroeconomic trend that affects business performance."[23]

Economic security depends strongly on political stability, and the macro-micro situation around the investigated problem. First, the economic performance is highly

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[20] Diane C.Snyder, *Economic Intelligence in the Post-Cold War Era: Issue for Reform*. Available [online]: http://web.nps.navy.mil/~rloonev/4141_74.htm ; accessed May 5, 2000, p.8.

[21] John Nolan, *Confidential: Uncover Your Competitor's Top Business Secrets Legally and Quickly – and Protect Your Own* (Phoenix Consulting Group, 1999), p.107.

[22] Glenn Hastedt, "Seeking Economic Security Through Intelligence," *International Journal of Intelligence and Counterintelligence*, Volume 11, No4, Winter 1998-1999, p.391.

[23] Glenn Hastedt, "Seeking Economic Security Through Intelligence," *International Journal of Intelligence and Counterintelligence*, Volume 11, No4, Winter 1998-1999, p.392.

vulnerable to the present political situation. For example, the political revolutions, wars, and crises can initiate the withdrawal of capitals for both investors and the local economic elite. The threat of the expropriation of private assets has the same impact on the capital market. Instability is the main reason for moving the short-term investments that can support long-term development of the state economy and also hits the international markets. For example, the invasion of Kuwait drastically increased oil prices. The definition of the risk to one's security could be different, and it requires pre-established norms and factors for its assessment. Therefore, EI is connected with political intelligence.

Second, macro and micro risks are different in their nature. For the competitive intelligence, there are some problems. The political risk assessment models that focus on macro level of risk are unable to link general conditions of political instability to the level of the single enterprise that is threatened. There is not any connection between macro and micro levels. The micro level presents its own warning problems. If micro risks are not estimated correctly, they will lead to serious business problems. The macro risk is responsible for assessing all changes in state and global economy, such as a whole industry, regional and global market of raw materials, labor force, goods and others. Scientific knowledge and new technological inventions can boost some national economies and give them competitive advantages as well.

In opposition to the macro risk, the micro risk acts within a narrow area, and it is designed to estimate the economic situation of some enterprises, one-product market, and financial risk for investment in some regimes or states. The micro risk deals with legal

issue, tax norms, state regulatory system, and intellectual and technological proprietorships. A good example of legal misuse is the proliferation of software and video production in Eastern Europe. Therefore, state EI has to cover different levels. This requires a great resource from the state that does not coincide with the tendency of worldwide downsizing of state structures.

Third, negative information can carry some risks too. Thus, a decrease of industrial development can be a common situation on the market and stimulate economic activities somewhere. For example, the decline in the sales of personal computers does not indicate the crisis in this industry. Yet, it can be interpreted either as a decline or as a shift to personal digital assistants (PDA).

The growth of EI services in the organizations shows that many of them prefer to rely on their own services rather than use others. The trend was common for private economy in the 1990s. Next, some products are most popular among consumers of the analytical EI, such as are country outlook, country data forecast, country risk monitor, etc. All these analyses do not cover the global economy, are not free and usually use the same data.

Country Outlook examines the country's business, financial, and economic situation. It usually forecasts for the next two or five years. Country Data Forecast presents current financial yearly data and gives a five-year forecast for 23 indicators. Some of these are population and its estimated growth, real and absolute gross national product (GNP) with changes, GNP per capita, changes for consumers prices, actual account balance, external debt, and trade balance. Country Risk Monitor analyses the

current and future risk of states based on their economic, financial, and political data. It rates the states appropriately to the level of risk. The main factors for risk evaluation are the ratios of external debt to GNP, the state budget to GDP, external debt to exports, and debt service to exports. Profit Opportunity Recommendation includes three elements, such as Political Risk Index, Operations Risk Index, and Reparations Risk Index.

The process of the analysis differs from the intelligence process. It includes the collection of the information obtained from the investigated state, an opinion of expertise, and the collective viewpoint of the group of experts usually from 5 to 250 people. The analysis also includes the quantity methods of research. This is proceeded statistical analyzed data. In addition, some agencies use their personnel. They conduct an opinion survey of their employee working in headquarters and in the analyzed countries as well.

Therefore, a large variety of economic analysts and agencies conduct economic intelligence using open sources for collecting data and producing analyses. The analyses are similar to economic intelligence because they present not only an excellent description of the current economic situation, but also make a forecast for the future that is reliable in making many state decisions. However, "open sources cannot serve as a replacement for government intelligence. Government intelligence can serve as a useful 'second engine,' confirming and disclaiming what is out there, and also providing new insights through its clandestine collection capabilities."[24]

The necessity to maintain ES of the state is dominant in reaching a decision on conducting EI. The role of EI is secondary. EI can enforce the ES of the state. There is no

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[24] Diane C.Snyder, *Economic Intelligence in the Post-Cold War Era: Issues for Reforms.* Available [online]: http://www.fas.org/irp/eprint/snyder/economic.htm/; accessed July 15, 2000, p.3.

answer on the availability of economic information in wartime, so EI can become a reliable producer of economic intelligence in the time of war. There is the range of opinions on the principles, functions, and priorities of EI. (D. DeConcini, N. Galvan, P. Zelikow) They are reasonable and support the involvement of the state's intelligence community into EI. (G. Hastedt) There is no answer on the preferable type of EI strategy. Both defensive and offensive strategies can be used. (D. Deconcini) The strategic choice depends on many political, social, and cultural factors. The issue of sharing the state's economic intelligence with the private sector is still without answer. Many states support defensive EI of the private economy, while a few others are also active in using offensive strategy. (Japan, France) In conclusion, the modern state is responsible for protecting and developing its economy and the well being of its citizens. It has to create and maintain an ES system. EI is capable in supporting the state's activities by producing reliable, correct economic intelligence in time of peace and war.

III. ECONOMIC INTELLIGENCE AND ITS CLASSIFICATION

Intelligence is the mental quality "that consists of the abilities to learn from experience, adapt to new situations, understand and handle abstract concepts, and use knowledge to manipulate one's environment."[25] It is a human feature that was developed, studied, and transferred to every new generation. Many theorist believe that intelligence is more an ability or readiness than a genetic achievement. On the other hand, this word has a different definition concerning the ability of some organization, group or one individual to produce some piece of knowledge, which contains valuable information to be used for making some type of decision.

Intelligence, as a type of social activity, is one of the most ancient professions in the world. Some even says that it is the second oldest profession. There are tremendous applications for intelligence. For example, it helps in many decision making processes, and gives an early forecast in every type of organization. All procedures of implementing intelligence have similar characteristics and features, using similar methods and models in gathering, analyzing, producing, and dissemination intelligence. Intelligence is conducted on different levels of activity with specific goals as well as targets.

There are many definitions of intelligence, yet they can have different meanings. The most common are intelligence as process, as product, and as organization. The better definitions belong to M.Lowenthal who says

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[25] The New Encyclopedia Britanica, Volume 6, 15TH edition, p.338.

> Intelligence as process: Intelligence can be thought of as the means by which certain types of information are required and requested, collected, analyzed, and disseminated; and the way in which certain types of covert action are conceived and conducted.
>
> Intelligence as the product: Intelligence can be thought of as the product of this process, that is, as the analyses and intelligence operations themselves.
>
> Intelligence as organization: Intelligence can be thought of as the units that carry out various functions.[26]

The final goal of intelligence is producing written documents to support the decision-making process of politicians, managers, and leaders. The documents can be reports, bulletins, notices, and briefs. Intelligence products have to "meet six principles... - accuracy, objectivity, usability, relevance, readiness, and timeliness."[27] The demands are relevant to the competitive intelligence. John Nolan has described competitive intelligence with the same demands as state EI.[28]

The purpose of this chapter is the investigation of a very specific type of intelligence - economic intelligence (EI). This issue is difficult for research because of the top level of secrecy of the intelligence organizations and any intelligence activities as well. The approach to the issue of EI is based on the analysis of main schools, levels, and components of intelligence. The analysis of the open literature represents many facets of intelligence art, but it cannot investigate the subject of the research completely.

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[26] Mark M.Lowenthal, *From Secrets to Policy* (CQ Press, Washington 2000) p.8.

[27] Kevin P.Stack, "Competitive Intelligence," *Intelligence and National Security*, Volume 13, Winter 1998, No4, p.194.

A. SCHOOLS OF INTELLIGENCE

If intelligence activities are opened for public review and analysis, it is only with great delay. The delay is from 10 to 50 years. There are two sides to this issue. The face is usually unclear and consists of fragmental information. The tail is closed for public review and cannot be discussed under any circumstances. This chapter discusses three models of intelligence organization that have different characteristics and approaches for organizing and conducting intelligence and different viewpoints toward collecting information and data. To understand intelligence, it is necessary to start from the analysis of an intelligence organizational model using the description of these models.

The existence of intelligence appeared to be clear during World War I. The openness of this organization was realized in some states after WW II. Modern intelligence, according to H. Ransom, is developed into three major groups or types that are then developed into some particular models, such as British, Soviet, and United States models. (See Figure 1)

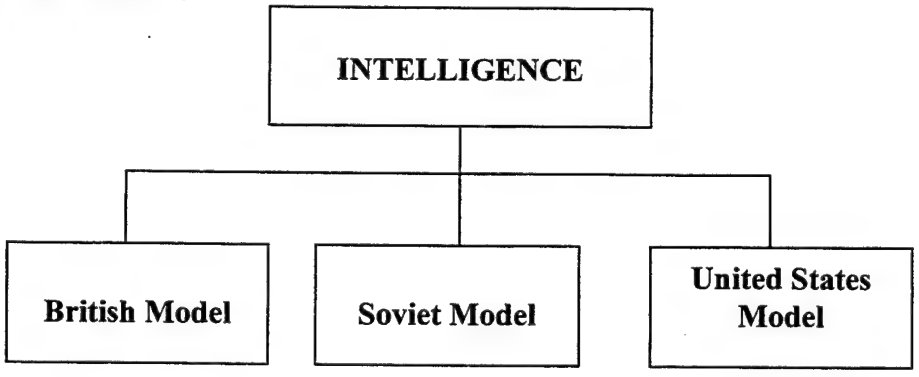

Figure 1. Models of Intelligence

[28]For more details see John Nolan, *Confidential: Uncover Your Competitor's Top Business Secrets Legally and Quickly – and Protect Your Own,* (Phoenix Consulting Group, 1999), pp.1-3.

The British is the oldest one. British "intelligence as an institution was a Victorian innovation."[29] Parliamentary committee controls the British intelligence with Prime Minister as the head of the committee. Scientists believe that the Prime Minister actually realizes full control over the intelligence organization. Special board of Prime Minister Advisors coordinates the British model. The intelligence organization consists of two principal branches, Secret Intelligence Service (MI-6) and Security Service (MI-5). As reported, MI-6 carries intelligence functions and MI-5 – counterintelligence functions. They are characterized by the highest level of secrecy and the tremendous lack of information on the model; the personal of the services is only civilian. The third element of the Britain model was established in 1965 as the Defense Intelligence to support the Armed Forces. This model does not have a face, except for the official office that does not carry any function except representative. The tail of the British model is the scope for research and studies. The representatives of both services never appeared for public observation. The services are characterized by the absent of printed documents, and the absent of the access to the legal base of this model. The Britain model is the sample for many western European states.

The Soviet model was established after 1917, and came from both the state security organization KGB (Department of State Security) and GRU (Main Intelligence Directorate) of Armed Forces. The KGB had "the First Chief Directorate (which carried out counterintelligence), Second Chief Directorate (responsible for foreign intelligence

[29] Michael Herman, *Intelligence Power in Peace and War*, (Cambridge University Press, 1999), p.15.

gathering), and Third Chief Directorate (responsible for internal security)."[30] The Soviet model had parallel structures, the personnel was the officers of state security and department of defense. They competed with each other for the access to the authority and influence over it. The main element of this model was human element, an agent, as the main source of information, influence, and promoting the socialists and communists ideas. The main mission of the Soviet EI was both economic intelligence and economic espionage. The main target was technologies and scientific information. KGB and GRU did EI separately. The state coordinated activities of two intelligence agencies. At the beginning, the Military-Industrial Commission since 1963 and later General Commission of Military-Industrial Complex since 1985 were responsible for coordination. Besides the intelligence agencies, some state's agencies like State Committee of Economic International Relations, a special department of the National Academy, two departments of the Ministry of International Trade also conducted EI. [31]

Some information about the Soviet model became available after 1991. The socialist block states used the model as basis for establishing their own intelligence organizations. The tail of the model was its high level of conspiracy and repression. The organization was used as a revolutionary and terrorist tool for promoting ideas of communism. Access to information about the organization was delayed throughout the state system weaken control over the Soviet model intelligence organization.

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[30] The New Encyclopedia Britannica, Volume 6, 15TH edition, p. 338.

[31] Alexander Kolpakidy, Dmitryi Prohorov, *Imperia of GRU, Moscow*, (Olma-Press, 1999). Available [online]: http://www.agentura.ru/dosie/gru/imperia/razryadka/; accessed January 21, 2001.

The United States model is the young one and most complicated. It was created as the answer to the demands of WWII, which brought new demands on coordination of the intelligence by the state. The Office of Strategic Services (OSS) was the coordinator of all intelligence activities during WWII. At the end of the war, the OSS was disbanded. However, the United States model was eventually abandoned and rebuild as an intelligence organization. The necessity to coordinate intelligence was later realized by the Central Intelligence Agency (CIA). The CIA has supported the National Security Council (NSC) since 1947. The CIA advises the President and NSC on all foreign intelligence activities, and it coordinates, links, evaluates, and disseminates intelligence within the U.S. government. The CIA combines the three principal functions: foreign intelligence, external counterintelligence, and clandestine political operations and psychological as well. The CIA's director plays the principal role in the US intelligence system. The director is the president's adviser, a member of NSC, and a chairman of the United States Intelligence Board, and the Council of the US Intelligence Community. The Community consists of the CIA, the State Department, and the Defense Department, mainly DIA, the National Security Agency, plus representatives from the Atomic Energy Commission and the Federal Bureau of Investigation (FBI).

B. LEVELS OF INTELLIGENCE

This classification of intelligence is based on the size and scale of the organization that conducts EI and the importance of EI for the organization. The levels of intelligence are strategic or national, operational or corporational, and tactical or combat. (See Figure

2) The levels that are proposed are based on the analysis of organizational structures and targets. The classification was preferable for the Soviet intelligence system and is widely used by many organizations throughout the world, and is relevant to the organizational structures of any organization now. This classification of levels helps conduct the analysis of EI.

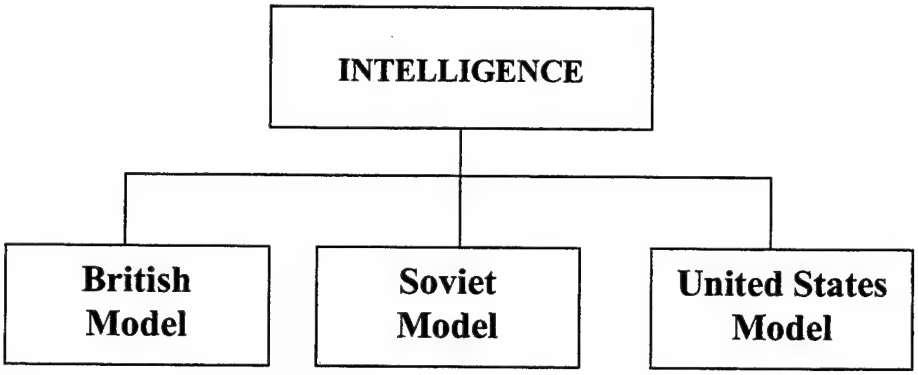

Figure 2. Levels of Intelligence

Strategic or national, for example, intelligence activities are conducted for a state, an international corporation. The strategic objects are divided mostly into political, military, economic, and other objects. The economic objects can be critical industries, natural resources, industrial centers, and transnational corporations that operate within the area of the organizational responsibility or control. For instance, the activities of Japanese car making transnational corporations are important for both the US government and domestic car transnational corporations. A strategic level is very critical for the state because the globalization of economy, scientific revolution, and development of nuclear

weapons has dissoluted the national borders and weakened the state's ability to protect itself.

On the other hand, these processes initiated rapid changes in political, economic, and technological societies that require from state the ability to envisage the future problems. The state is also responsible for creating a favorable legal base both internal and external. The former is a domestic legal system, regulations, and acts. The latter is the system of bilateral and multilateral agreements on particular issues of economic activities. Both internal and external legal frames set the national economic security system, the goals of the EI and its responsibilities. There are four types of the strategic level of intelligence. They are "basic, current, warning, and estimative." [32]

Operational or corporation intelligence has a smaller area of responsibility and is realized by smaller organizations than strategic or national intelligence. The best examples are probably the activities of the Army, Navy, and Air Force Intelligence that are responsible for a lower scale of intelligence than the Defense Intelligence Agency. The activities within some markets, such as energy, high tech, and air industry are another example of this level.

The operational level was more common for the intelligence system of the former USSR. This type of intelligence organization could be encountered in the Armed Forces. It was responsible for producing intelligence for the chief of great units up to the chief of the military regions, and operational military groups. In the economy, this level is suitable for national corporations, national industries, and branches of government, and science

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[32] For more details read Kevin P.Stack, "Competitive Intelligence," *Intelligence and National Security*, Volume 13, Winter 1998, Number 4, P.197.

within national borders. The operational level gives a smaller scale of the analysis represented in the intelligence report, but it is very useful for making decisions on this level of management and control.

Tactical or combat intelligence is the smallest in scale and scope. This intelligence is conducted by the smaller organizations. A military example is the intelligence of battalion level or less, and intelligence for collecting data about development of some specific product, such as CPU, an aircraft, or new material for a particular industry.

The combat or tactical level originated from the necessity to provide intelligence for small organizational unit. It is more narrow, and informative. The time line is very important for this level. The time is the most important quality for this type of intelligence because the organizations that are acting on this level share in common capabilities that only a few pieces of information multiplied by time factor could become critical for achieving advantages over adversary or counter partner organization.

Porter proposes a special classification of the levels of EI that have four-level functions of EI. They are

- the primary level that refers to firm level;
- an intermediate stage (inter-professional and local networks, such as strategic alliances between the financial services community and information technology developers to liberate the movement of capital and financial information);
- the national level (linked strategies between different – government, business, labor – decision-making centers, favored in more corporatist political environments and most apparent in continental Europe and Japan);
- the transnational level (through strategic alliances undertaken by firms of all sizes) or the international level (strategic influence pursued by nation-

states bilaterally, and multilaterally, as exemplified by the European Union's support for the transnational research networks of its Member States, or Canada's various bilateral research and development agreements with other states).[33]

- Next, Potter uses Martres' typology of the types of EI. They are the following:
- Primary and Secondary economic intelligence
- Tactical economic intelligence
- Clandestine economic intelligence[34]

This typology is based on the accessibility of the economic data. The first and second types are open economic information, and some pieces of research. Everyone with minimum time requirements can obtain them. The tactical level of EI has limited access requiring special skills, governmental, professional, or public position from the collector or user of this information. Clandestine type of EI deals with highly classified economic information that is limited in access. This information can be obtained by using human or technical intelligence. (E. Potter, 25) (For more details, see Typology of Economic Intelligence in Table 1).

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[33] Evan H. Potter, *Economic Intelligence and National Security,* (Carleton University Press, 1998), p.24.

[34] Evan H. Potter, *Economic Intelligence and National Security,* (Carleton University Press, 1998), p.25.

Table 1. Typology of Economic Intelligence

Characteristic	Primary	Secondary	Tactical	Clandestine
Color code	**Green zone**	**Yellow zone**	**Red Zone**	**Black Zone**
Access	**Accessibility is greatest;** everyone can observe. Information is available (in hard copy or electronically) through simple procedures that can be undertaken by the non-specialist (e.g., by mail, through the Internet or other electronic bulletin boards, faxlinks, 1-800 numbers, etc.) **Because of differing legal systems and disclosure regimes,** the level of access to information varies from country to country.	Although the availability of economic intelligence is not as widespread because of scarcity of supply, high cost, or the need for specialist know-how (e.g., techniques to access particular data-bases), it is still freely accessible and in the public domain. This type of information is usually in the form of published text, whether in hard copy or electronic form. An example of this would be some statistics publications of Canada (e.g., Canadian Economic Observer) on macro-economic trends, or it can refer to sector studies (e.g., the telecommunications sector in Germany) sold by subscription or by, say, the Canada-German Chamber of Commerce.	Economic intelligence is "tactical" when it concerns information that is *more difficult to acquire and that has a degree of confidentiality.* This type of information, whose acquisition under certain circumstances could be unethical, is usually acquired through primary research (e.g., interviews, oral communications). It can also be acquired from client surveys (formal and informal), industry conversations, and consultants (e.g., Canadian Corporate R+D Database). Here, the raw information provided from levels one and two is treated with a higher level of analysis and can be translated into the strategies and tactics used by firms in their industries, their ability to launch new products, and organizational restructuring (i.e., activities internal to the firm).	Economic intelligence of a "strategic" nature concerns that information whose accessibility is sophisticated, difficult and delicate. It consists, for example, of identifying the future intentions and capacities of competitors (firm or state). This type of information is frequently sought by managers, intelligence services, and the many professional groups (lawyers, consultants, agents) who act as purveyors of his information to one or more firms or states. The challenge for the initiator of this type of information is to integrate scarce information into comparative advantage, whether at the level of the firm or the nation-state. Because of the scarcity and hence high value of the information, there is an incentive for the individual, the firm, or the state to overstep the boundaries of the ethical standards and use illegal methods, in order to be more competitive. The compilation of numerous sources of this highly scarce information may thus lead to a "strategic" economic intelligence. An example of this could be the prior knowledge by one firm or state of the intentions of a competitor firm or state during the international tendering of a multi-million dollar contract to, say, overhaul a fleet of aircraft.
Authorized/ Unauthorized	Everything that is not prohibited is supposedly allowed. Open access.	Everything that is not prohibited is supposedly allowed. Open access.	Everything that is not prohibited is supposedly allowed. Conditions on access (security personnel or ethical considerations).	Everything that is not authorized is not allowed. Access is given only to specific private and state sector personnel. If access is unauthorized, it is clandestine.
Type	Open information.	Open information (90%).	Partially open or sensitive information.	Proprietary/denied information (10%).
Category of legal infractions		Possibility of intellectual property infraction.	Interpretation of jurisprudence. Trade secret infraction.	Infractions of criminal and commercial law. Physical or electronic penetration of public administration. Physical or electronic penetration of firms.

From Ref. [Evan H. Potter, Economic Intelligence and National Security, Carleton University Press, 1998, pp..26-28]

Two types of classification are useful for the analysis of EI. The intelligence of any level has goals in the strategic meaning to evaluate

> information about the capabilities and intentions of foreign governments, or any processed information sought by the policy councils of one group about another. 'Intelligence' is often misused as a term synonymous with 'espionage,' which is only one of many methods for collecting intelligence.[35]

Espionage will be discussed later in this chapter. Strategic intelligence on the state level of operations, "evaluates information concerning such things as the strength, activities, and probable courses of action of other nations who are usually, but not necessarily, opponents."[36] The information collected on every level can consist from a higher or lower level of intelligence. It is important for the intelligence organization to establish and maintain the maximum exchange of information for producing valuable intelligence.

The final goal of intelligence activity is the presentation of a useful report that is helpful in producing the managerial decision for either a chief of state or a company. Next, intelligence presents the forecasting report with high level of support. The intelligence report has to facilitate the head of state or chief of the organization to make more rational and successful decision. After that, intelligence has two options in its activity, either continue the collection of information concerning the object or stop it. The decision is based on the importance of the object and demands for such a type of intelligence.

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[35] The Encyclopedia Americana, International Edition, Volume 15, Crolier, Dunbury, Connecticut.

[36] The New Encyclopedia Britanica, Volume 6, Chicago, 15TH edition.

C. COMPONENTS OF INTELLIGENCE

Another approach for intelligence classification is dividing it into components. Such components are political, economic, and military. The next group is the informational base of intelligence consisting of scientific and technological information, geographic information, and biographic information. All components are presented in the following figure. (See Figure 3)

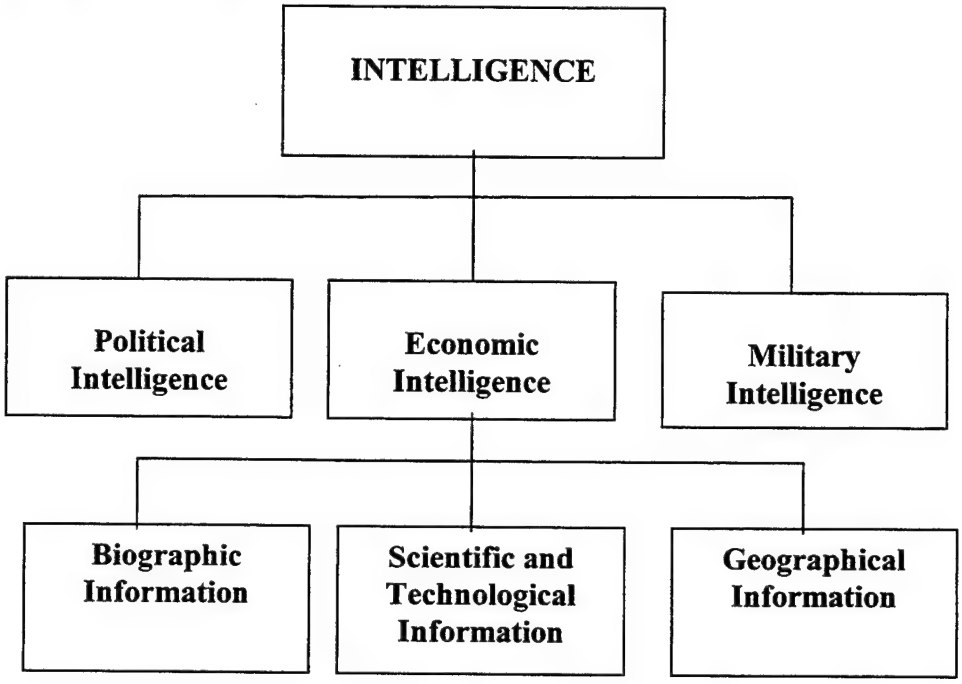

Figure 3. Components of Intelligence

The security of the organization in any form is based on the three principal frames. They are political, economical, and military frame. The intelligence components stem from this assumption. The political component of intelligence deals with a broad range of political problems. It is responsible for producing political intelligence requiring

regular and efficient analysis. The political component is based on diplomatic information that must use information about political and state leaders, political contest, and social opinion. State departments and embassies are involved in the realization of political intelligence. Besides political function, "Japan's embassies provide extraordinary support to its business community."[37] Such intelligence uses political theories in producing reports by using covert and overt means in acquiring the information. The economic component of intelligence is responsible for producing economic intelligence based on information about resources, industry, transportation, finance, trade, economic trends and indicators, such as gross national product, level of inflation of national currencies, and economic growth. It also covers economic events, such as recessions, economic competition, economic achievements, sanctions, hunger and so on. Unfortunately, there is not any universal definition of the EI for both governmental and private economy. There is a variety of terms, such as political and economic risk analysis, business or competitive intelligence. All these kinds of intelligence have the same intelligence cycle and use similar methods. Included in EI are two parts: first, intelligence and, second, counterintelligence.[38]

The military component collects information concerning the organizational structure, armaments, equipment, size, location, goals of combat training, and levels of readiness of armed forces. The goals of the military component are divided into missions

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[37] Jeffrey W.Wright, "Intelligence and Economic Security," *International Journal of Intelligence and CounterIntelligence*, Volume 5, No2, p.211.

[38] For more detail, see Glenn Hastedt, "Seeking Economic Security Through Intelligence," *International Journal of Intelligence and Counterintelligence*, Volume 11, No4, Winter 1998-1999.

of peace and war. The primary goal of the military component is forewarning against a surprise invasion in the time of peace. Wartime adds to the collection special operations, such as diversions, capturing the prisoners and documents, samples of the armaments and equipment.

Therefore, intelligence is a synthesized product, consisting of many elements. The process of producing intelligence requires using political, economic, and military information. It also uses the information collected by components of intelligence and additional information in every particular case. Scientific and technological information is important for analyzing the scientific and technical issue in nuclear research, armaments, new materials, cosmonautic explorations, new types of communications, and many others. Geographical data can reinforce both the analysis and synthesis of the information for producing reports. Geographic information usually includes data on topography, climate, seashore, population, communication net and its capabilities, facts from geographic history, locations of industrial centers, capitals, and others data. Biographic information can be very useful for intelligence. It can enforce intelligence reports; it can offer some clues in resolving some puzzles because of the critical role of mankind in decision making process. The behavior and analysis of the organization requires studying personal data of the leaders of the organization. This data can help to predict the opponent's strategy from negotiations to direct aggressive actions.

D. ECONOMIC INTELLIGENCE

There is a range of definitions concerning EI. They are economic intelligence, economic espionage, industrial espionage, and competitive or business intelligence. The forms of EI have particular differences that separate each form from another. The chart of EI structure presents four types of EI. (See Figure 4)

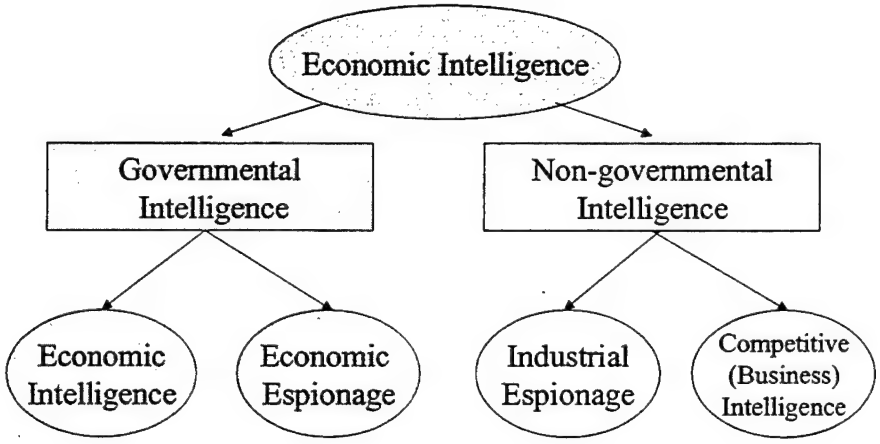

Figure 4. Economic Intelligence Structure

Harold Ford, a former deputy assistant secretary for functional analysis and the research bureau of intelligence and research US Department of State, talks about "a misunderstanding of the appropriate role of economic intelligence compared to other

intelligence factors."[39] He argues that EI is a traditional function of the intelligence community. First, economic policies need EI support. Second, the monitoring of technological development is an important issue for national security. Third, the existing threat to the national economy requires active counterintelligence measures.

A Consumer's Guide to Intelligence says that EI is "intelligence regarding foreign economic resources, activities, and policies, including the production, distribution, consumption of goods and services, labor, finance, taxation, commerce, trade, and other aspects of the international economic system."[40] An important role of EI is to support national ES. A quite different approach to EI is proposed by S. Porteous. He says that EI

> is policy or commercially relevant economic information, including technological data, financial, proprietary commercial and government information, the acquisition of which by foreign interests could, either directly or indirectly assist the relative productivity or competitive position of the economy of the collecting organization's country.[41]

The second definition emphasizes assistance to 'the relative productivity or competitive position' that is critical for economic success. The collecting of economic information is a legal, open process. It is not considered an illegal manner, such as a clandestine, coercive, and deceptive approach. Moreover, EI is designated to provide the collecting organization with sufficient economic intelligence for making correct, long-lasting and timely decisions. Yet, EI cannot serve as the subversive information for

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[39] Randall M.Fort, *Economic Espionage: Problems and Prospects*, (Consortium for the Study of Intelligence, 1993), p.2.

[40] A Consumer's Guide to Intelligence, Office of Public Affairs, Central Intelligence Agency, 1995, p.43.

[41] Samuel D.Porteous, "Economic Espionage: Issue Rising from Increased Governmental Involvement with Private Sector," Volume 9, October 1994, No4, p.736.

gaining personal advantages for the direct losses of another organization. This is the main difference between economic intelligence and economic espionage. The activities of EI are concentrated on issues that can affect national security and interests. It presents mostly macroeconomic data and economic analysis. Most of the state's EI organizations do not conduct industrial espionage; whereas, some states actively use economic espionage. Economic espionage differs from EI mostly in methods. Porteous' definition stresses this difference. The forms of EI have different intensity on each level of intelligence. (See Table 2)

Table 2. Levels of Economic Intelligence Activity

Proposed by Author

	Levels of Intelligence/ Levels of Economy		
Form of EI	**Strategic**	**Operational**	**Tactical**
Economic Intelligence	Highest/ Macro	High/ Macro	Low/ Macro
Economic Espionage	High/ Macro	Highest/ Macro	Lowest/ Macro
Industrial Espionage	Lowest/ Macro	Highest/ Macro	High/ Micro
Competitive Intelligence	Intermediate/ Macro	Highest/ Macro	Highest/ Macro/Micro

"Economic espionage is the use of, or facilitation of, illegal, clandestine, coercive or deceptive means by foreign government or its surrogates to acquire economic

intelligence."[42] Economic espionage deals not only with economic data either financial or managerial, but also with technologies, products, engineering decisions, and new materials. Economic espionage is "the clandestine acquisition of economic, financial, trade, and /or proprietary information by an official intelligence service using intelligence sources and methods."[43] Randall M.Fort argues that this type of intelligence is natural for intelligence agency. He sees the problem in providing such intelligence to the private sector.

Next, industrial espionage is similar to economic espionage, but it is conducted by private business' organizations that act on their behalf. "Industrial espionage is the use of, or facilitation of, illegal, clandestine, coercive or deceptive means by private sector entity or its surrogates to acquire economic intelligence." [44] Industrial espionage has a very long history. For example, China lost its secret of porcelain to the merchants from Europe between 1712 and 1722. This is one of the first known cases of industrial espionage.[45] Competition of any scale forces the companies to conduct industrial espionage. It is dangerous when the international companies are involved. "Industrial espionage is most dangerous when it touches on national security, a comparatively recent

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[42] Samuel D.Porteous, "Economic Espionage: Issue Rising from Increased Governmental Involvement with Private Sector," *Intelligence and National Security*, Volume 9, October 1994, No4, 737.

[43] Randall M.Fort, *Economic espionage: Problems and Prospects*, (Consortium for Study of Intelligence, Washington, 1993), p.23.

[44] Samuel D.Porteous, "Economic Espionage: Issue Rising from Increased Governmental Involvement with Private Sector," *Intelligence and National Security*, Volume 9, October 1994, No 4, 737.

[45] For more cases of industrial espionage see Brain Champion, "A review of Selected Cases of Industrial Espionage and Economic Spying, 1568-1945," *Intelligence and National Security*, Volume 13, Summer 1998, Number 123-143.

development of our technological age."[46] The high cooperation between the state and private business can threaten the national security of other states by collecting information on sensitive military, nuclear technologies.

The definition of competitive intelligence (CI) is different from others, but it is close to EI. In addition, competitive intelligence is similar to business intelligence. The representatives of CI claim that they acquire EI by using only legal methods. The methods of the CI are "examining published information sources, conducting interviews, and using other legal, ethical methods. Using a variety of analytical tools, a skilled CI professional can fill by deduction any gaps in information already gathered."[47] Therefore, CI is a form of offensive intelligence because it collects required information for producing economic intelligence. It does not act as the defender of any organization economic secrets. The importance of CI stems from the necessity of bigger informational support for modern business. For example, many companies, like GMC, Xerox, IBM, and Motorola, use CI. "Of the 100 largest economies in the world, 51 are corporations, and only 49 are countries. Wal-Mart is the bigger than Israel, Poland or Greece. Mitsubishi is bigger than Indonesia. General Motors is bigger than Denmark."[48] Certainly, the corporations conduct CI. Thus, "General Motors' budget for 'competitive intelligence'

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[46] Vincent and Nan Burranelli, *Spy/Counterspy,* An Encyclopedia of Espionage, McGraw-Hill Book Company, 166.

[47] Web page of Competitive Intelligence Professionals Organization, http://www.scip.org/ci/faq.html.

[48] Longworth, R.C., "Old rules of Economics Don't Work the Way Textbooks Say They Should," *Kansas City Star*, sec. K. p.4, 27 October 1966.

alone exceeds the entire budget of the French foreign intelligence service." [49] The growth of the CI organizations indicates the higher demands on EI from medium and small business that cannot afford to conduct their own EI. The following table (Table 3) presents the analysis of CI conducted by the private sector of economy. It classifies the private enterprises into three groups: large, medium, and small, based on their annual revenues.

Table 3. Patterns of Competitive Intelligence Targets by Size of Company

Company Size	CI Collection	Target Protection	Anti-CI	Opponent
Large (>60)	65%	L=28% M=41% S=31%	25%	L=82% M=11% S=07%
Medium ($20 -$60)	26%	L=40% M=50% S=10%	43%	L=28% M=41% S=31%
Small ($500K - 20M)	9%	L=62% M=15% S=23%	23%	L=71% M=27% S=02%
From Ref. [John Nolan, Getting to Know Your Competition – Without Them Getting to Know All About You. Available [online]: //www.intellpros.com/howcollect.html, accessed April 25, 2000.]				

Next, there are many approaches to the EI process. The intelligence process is a cycle. The cycle is the required procedure of obtaining draft information or data, collecting and analyzing it, producing intelligence and distributing it. The immense and unsystematic acquisition of information is not a rational way of spending intelligence resources. First, intelligence has to establish goals, purposes, and priorities tightly

[49] Evan H.Potter, *Economic Intelligence and National Security*, (Carleton University Press, 1998) p.58.

connected with a time line. This can save available resources, increase efficacy within existing constraints. The planning phase should be implemented on the department level and state level as well. The second phase is collecting information. This stage is done in both an overt and covert manner. The overt activities present 80-90% of all activities. The data differs from state to state and from organization to organization. The open sources could be news media, official statistics, reports, and a relatively new source – e-information. Mark Lowenthal states seven steps of the intelligence process. They are "identifying requirements; collection; processing and exploitation; analysis and production; dissemination; consumption; and feedback." [50] (See Figure 5)

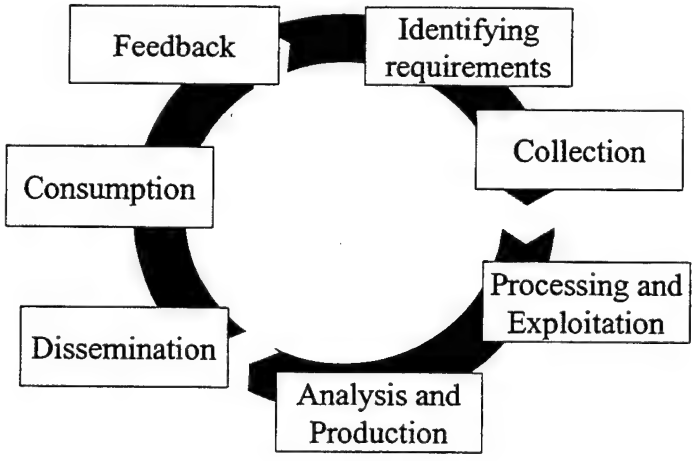
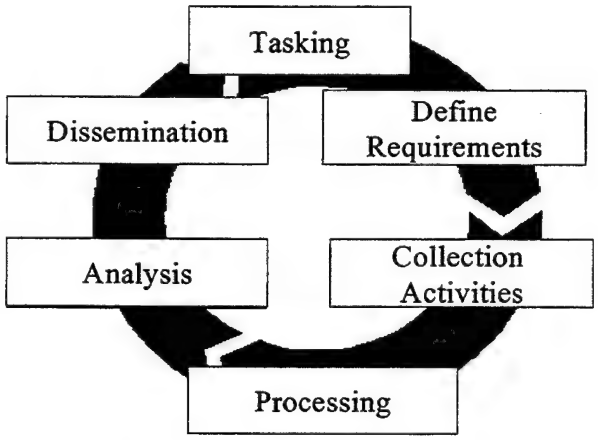


Figure created based on the model of M.Lowenthal

Figure 5. Intelligence Process

[50] Mark M.Lowenthal, *Intelligence From Secret to Policy,* (CQPress, Washington, 1999) p.40.

The main distinguishing point of this model is the feedback providing sufficient information for adjusting any phase and making corrections. The competitive EI has similar stages: tasking, defining requirements, collection activities, processing, analysis, and dissemination. M.Lowenthal argues that the intelligence process can be conducted in a linear or circular approach. If the mission of intelligence is a one-time mission than it can be conducted in a linear way, for instance negotiation, or a technical innovation.



Source:http:John Nolan, Confidential: Uncover Your Competitor's Top Business Secrets Legally and Quickly – and Protect Your Own, New York, 1999. Available [online]: //www.intellpros.com/howcollect.html, accessed January 25, 2001

Figure 6. Competitive Intelligence Collection Model

The constant targets of intelligence require the permanent collection of information, for example in competition between the carproducers' France, Italy, and German for the European market. They require the circular intelligence process. Feedback is an important element of the intelligence process for both linear and circular models.

The competitive intelligence model proposed by J.Nolan does not have a feedback phase, but each phase is designed for correction and self-adjustment. Therefore, both models are similar and practical.

In conclusion, EI exists in two forms: governmental and non-governmental. It uses legal and illegal methods that create many definitions of this activity. There are some interlinks among all forms of EI. They can be different because of the different socioeconomic, political, legal, and cultural frames within the state. The state organization plays a dominant role in the development of the forms of EI and their cooperation. Each form of EI, except the competitive intelligence, act in a defensive and offensive manner. They can change their preferences due to a change in the political and economical goals, and legal foundation, but they cannot be separated from cultural roots. Culture requires a lot of time for any change. Some indicators of cultural changes are evident through the analysis of the educational system of state and, especially, its intelligence educational programs. Additionally, EI is an element of a higher system, which is economic intelligence system of state. Therefore, the analysis of EIS can give a better picture of the EI of modern state.

IV. ANALYSIS OF STATE'S ECONOMIC INTELLIGENCE SYSTEMS

The goal of this chapter is to analyze the economic intelligence systems and to elaborate on the proposition for creating and developing state economic intelligence.

The development of EI led to creating an economic intelligence system (EIS). There are different types of EIS that have similar and different features. The investigation of EIS can better help us to understand the benefits of EI and to find some problems in the system that have to be fixed. The typology of EIS differs from the schools of intelligence discussed in Chapter II.

"Economic intelligence system refers to the cumulative practices and strategies of information use, developed in every country at different levels of organization – the government (federal and sub federal), industry, firms, education, and the population as hole."[51] Prominent countries with EIS are Canada, the United States, Japan, France, Germany, and the Russian Federation. Potter offers excellent analysis for these countries with EIS except for the Russian Federation. The state EI that is recognized by an intelligence community is only a part of EIS. The EI process is the collaboration of many governmental and non-governmental organizations within EIS. These phases of the EI process were discussed earlier in Chapter II, D. Economic Intelligence. The revolution in communications has stimulated the development of the new informational technologies, which has led to the creation of the new informational society. Both technological and

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[51] Evan H.Potter, *Economic Intelligence and National Security,* (Carleton University Press, 1998), p.24.

informational development stimulated the production and dissemination of economic intelligence. Potter gives five major effects of the informational society:

> globalization;
>
> fragmentation, decentralization, and democratization (for example, proliferation, knowledge-based companies, the increased role of sub-national governments, and the multiplication of players involved in the process of governance);
>
> less possibility for secrecy; and
>
> the blurring of boundaries between industries, between public and private sectors, between goods and services, and between states, all of which has led to the need for new alliances and relationships and the need to rethink conceptual categories. In short, the collection and distribution of economic intelligence is being democratized as the result of advances in information technology and the emergence of an information society. [52]

All effects stimulate a higher level in the openness of the informational society; nevertheless, many issues are not so easy to access, such as financial and managerial information, which is not so open for analysis. Financial information requires additional checking, despite the fact that the data is openly distributed in many cases. The managerial data is closed for public access and requires great effort to collect. Any delay in receiving managerial information can cost the enterprise tremendous losses of revenue or even a share of the market. Therefore, the informational society can benefit from the reduction of resources for collecting some part of economic information, but it cannot permit EI to rely on open sources of economic information. The democratization of collection and distribution of economic intelligence raises a problem of democratic control over intelligence. According to T. Bruneau, "...democracies must establish a clear

and comprehensive legal framework. ...if the legal framework is not clear and explicit, intelligence agencies can never be brought under control."[53] Therefore, EIS has to function within a comprehensive legal frame that will maintain the highest level of its control.

It is necessary to classify the principal characteristics of EIS. First, there are the elements of EIS. These are the government, parliament, and court branches; intelligence community, main economic agencies, departments of the state, and non-governmental state's economic players, for instance, Chamber of Commerce, foreign economic players, scientific institutions, and private analytical organizations. Second, all elements of the state economy have their own strategy, accomplish their missions, and cooperate with other's elements. The activities are conducted in accordance with the state law or illegally. The classification of known activities of economic players of EIS includes ten possible scenarios. The following table of the functioned taxonomy of national EIS presents all of them. (See Table 4)

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[52] Evan H.Potter, *Economic Intelligence and National Security*, (Carleton University Press, 1998), p.30.

[53] Thomas C.Bruneau, *Intelligence in New Democracies: The Challenge of Civilian Control*, (The Center For Civil-Military Relations, Naval Postgraduate School, Monterey, California, 1999), p.12.

Table 4. Functional Taxonomy of National Economic Intelligence Systems

1	An aggressive global program of economic intelligence-collection largely through overt means.
2	An aggressive global program of economic intelligence-collection including significant covert means.
3	A more defensive global program of economic intelligence-collection (concentrating on preventing economic espionage).
4	A high level of cooperation among public sector and private sector users and producers of economic intelligence.
5	An intermediate level of cooperation among public sector users and producers of economic intelligence.
6	A low level of cooperation among public sector users and producers of economic intelligence.
7	An active indigenous private market for economic intelligence.
8	An active private market for economic intelligence with a high degree of foreign control.
9	A high-level of awareness regarding the importance of economic intelligence at the level of the individual firm.
10	A low-level of awareness regarding the importance of economic intelligence at the level of the individual firm.
From Ref. [Evan H.Potter, Economic Intelligence and National Security, Carleton University Press, 1998, 54.]	

A. ANALYSIS OF MODELS OF ECONOMIC INTELLEGENCE SYSTEM

Based on the classification of EIS, it is possible to set the models of EIS. The models reflect specific features of national EIS. They improve the analysis of EIS, reorganize the models if needed, emphasize the strategy to counter actions of the hostile state or organization of a particular state. They also help to predict the method of EI, which is more preferable for a particular EIS in organizing and conducting EI. Even though Potter's model of classification does not discuss the issue of the education of

intelligence personnel, an educational system also facilitates to analyze of EIS. Therefore, it should be included in model. First, it opens EI strategy and main objectives. Second, the surveillance of educational system enforces the collection of data on personnel that may be involved in EI activities. Table 5 gives the comparison of EIS:

Table 5. Comparison of National Economic Intelligence Systems (Using Categories from Table 4)

COUNTRY	PUBLIC/PRIVATE ORGANIZATION	Focus
Canada	Highly decentralized economic intelligence system, with 30 federal departments and agencies with 128 missions abroad; competitive national business association environment (Canadian Chamber of Commerce, Alliance of Manufactures and Exporters of Canada, Business Council on National Issues).	3, 6, 8, 10
France	Ministère des Finances acts as super-ministry for other government departments.	2, 5, 8, 10
Britain	Department of Trade and Industry plays key role, as does the City.	1, 5, 7, 9
United States	Decentralized economic intelligence system: recent attempts at executive level to better organize the flow of strategic information.	2, 5, 7, 10
Germany	The private sector, through chambers of commerce (whose membership is mandatory), is the hub of the economic intelligence system; also playing leading roles are the Länder.	2, 4, 7, 9
Japan	Collective culture is important, especially in binding government departments with conglomerates.	1, 4, 7, 9
From Ref. [Evan H.Potter, Economic Intelligence and National Security, Carleton University Press, 1998, p.55.]		

Next, the discussions on the structure of EIS enhances the awareness of the whole analysis of state EIS and the integration of the separate elements of the system. It gives a

better understanding of how EIS works and who is the main player of the system. Potter argues about the next three elements that are important for investigating EIS:

- In some countries, with a more individualist and less information sharing ethos, government acts more as a facilitator in the marketplace than a player in its own right, and focuses on creating a level playing field (business transparency) and the right macro-economic conditions to facilitate the achievement of economic growth.

- In other countries, with a more collectivist or statistic approach, government aims to protect and build national industries ("national champions") and to participate directly in the marketplace as well as to provide the private sector through regular and formal channels with extensive services information.

- Finally, some national economic intelligence systems are characterized by a greater complimentary between the public and private sectors, with no one actors having the leading role in the provision of economic intelligence.[54]

The freedom of entrepreneurial activities, an open market-based economy, and a democracy of state-societal relations make the exchange of economic information easier than closed state-based economy societies. Therefore, competitive intelligence satisfies the informational need in a more open society. It requires minimal state involvement into micro-economic informational exchange. If the state-based economy is dominant, the role of the state EI is key for satisfying the need of the state in economic intelligence.

> ...[T]he larger the role of government in a particular economy, the less effective will be private sector services and the more important will be intermediaries or agent, which in turn increases the likelihood of illegal or unethical acts to acquire economic intelligence, since the proportion of information classified as 'tactical' will be greater.[55]

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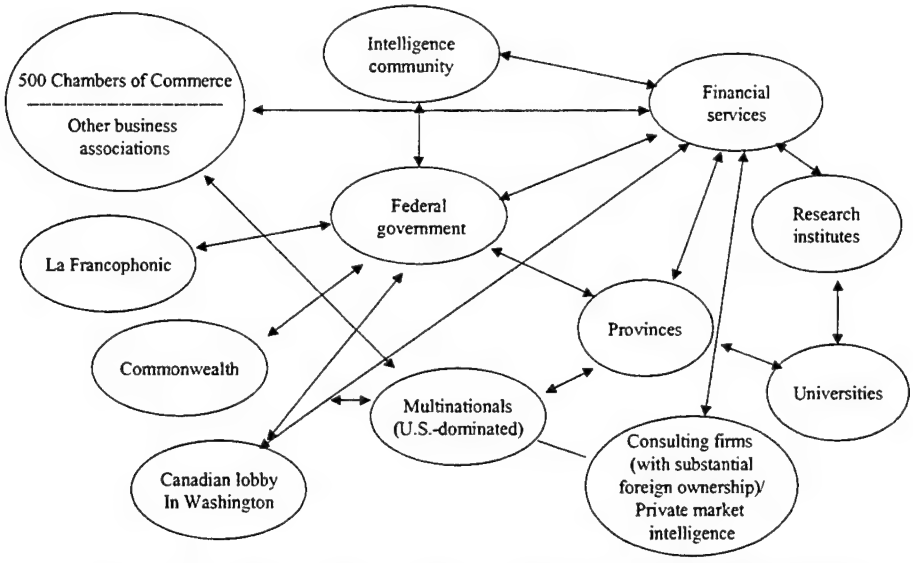
[54] Evan H.Potter, *Economic Intelligence and National Security*, (Carleton University Press, 1998), p.56.

[55] Evan H.Potter, *Economic Intelligence and National Security*, (Carleton University Press, 1998), pp.56-57.

The analysis of national EIS below shows the principal elements of each system and outlines particular features that transform each system into a model.

1. Economic Intelligence System of Canada

The role of the state EI, Canadian Security and Intelligence Service (CSIS) is mainly defensive. The system has achieved a low level of informational exchange. The mandate of state EI demands informational support and estimate to the government on covert activities of foreign states in Canada. E.Potter stresses many malfunctions of the Canadian EIS. The principal problems are caused by the absence of a national security strategy for the economy, a weak distributional system of economic intelligence, and the strong position of foreign companies in the non-governmental EI. The private sector does not pay a lot of attention to economic intelligence. All participants of Canadian economy are presented in the following figure. Their connections show the links of the economic actors. The figure shows that the state is not a central element of the national EIS. (See Figure 7)



From Ref. [Evan H. Potter, Economic Intelligence and National Security, Carleton University, 1998, 33.]

Figure 7. Economic Intelligence in the Canadian Economy

The Canadian EIS has potential for development of its system by active involvement of its ethnic communities and its labor force, but first the state has to establish its economic intelligence policies. Porteous foresees three options:

- An alliance with intelligence services of countries whose economic interests are almost indistinguishable from Canada's: the NAFTA option.
- An independently functioning economic intelligence system based strictly on Canadian economic and commercial interests...
- A combination of the above: the compete and cooperate at the same time option.[56]

[56] Samuel D.Porteous, "Economic/Commercial Interests and the World's Intelligence Services: A Canadian Perspective," *International Journal of Intelligence and CounterIntelligence*, Volume 8, No3, 290.

In conclusion, the Canadian model is a sample of an open economic society that has many weaknesses. It has to enforce its economic security to protect its position in world trade. Its economic intelligence strategy may be revised to enforce economic development of the state. A higher level of cooperation with EIS in the US is a possible direction of development for Canadian EIS.

2. Economic Intelligence System of France

France has a long history of promoting one united nation. It also maintains the French currency zone that is the area of its political, economic, and military domination. There is an evident shift from "relative indifference to trade and economic matters to an increased focus on trade negotiations, macroeconomics trends, and the economic impacts of so-called cooperative security concerns."[57] The main concern of French EIS is the promotion of the national economy through international trade and the priority of gaining technological development with the help of its EIS. The state takes control over all economic intelligence activities.

The activities of French Department of Defense clearly present the strategy of the French EIS. For example, the Main Directorate of Armament (DGA) with its 85 billion francs is creating the system of 'strategic economic intelligence.' The French DOD created the department of surveillance of economic research, Observatoire d'Etudes Economiggue, (OEE) in 1998. The director of OEE is Nicole Chee, a professor of economy of the University of Paris who worked for the improvement in the

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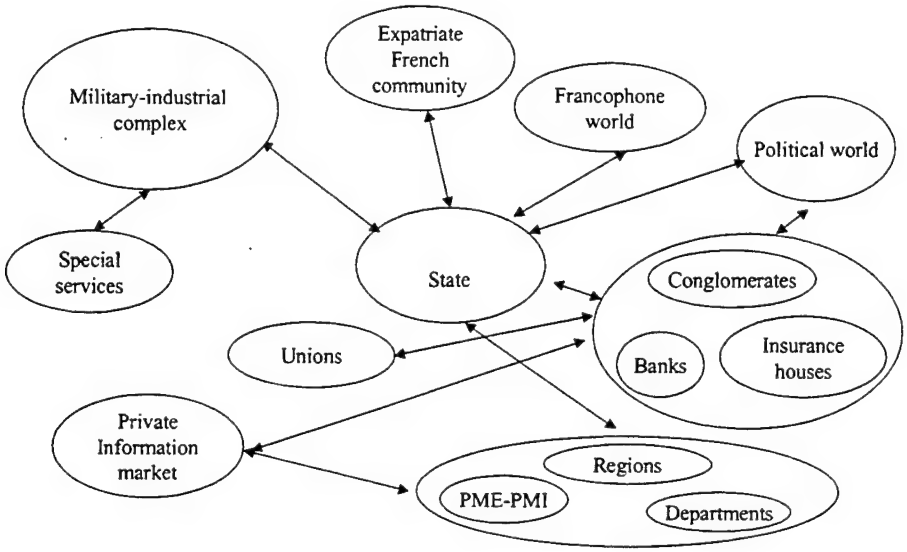
[57] Evan H.Potter, *Economic Intelligence and National Security*, (Carleton University Press, 1998), p.4.

competitiveness of French military industry.[58] The following figure clearly shows the central role of the state in EIS of France. There is a lack of the link between the state and the private informational market. (See Figure 8)



From Ref. [Evan H. Potter, Economic Intelligence and National Security, Carleton University, 1998, 65.]

Figure 8. Economic Intelligence in the French Economy

The main efforts of the French state in technological collection are "computers, aerospace, and production tools and processes."[59] To better understand the strategic goals of the state it is necessary to analyze its budget and educational system. Therefore, among the graduates of the French Military Academy, Saint-Sir, were 12 valedictorian graduates

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[58] Vladimir V.Gurgyi, Espionage as the Marketing form, Independence Military Surveillance, Nezavicimaia Gazette. Available [online]: http://www.ng.ru/printed/spforces/2000-10/13/7_form.html; accessed October 16, 2000, 1.

[59] Diane C.Snyder, *Economic Intelligence in the Post-Cold War Era: Issues for Reforms.* Available [online]: http://www.fas.org/irp/eprint/snyder/economic.htm/; accessed July 15, 2000, p.3.

who received prizes for thesis research on intelligence issue. Some of the theses were dedicated to economic intelligence, for example, the analysis of the American special services' operation against the position of French Oil Company, Total.[60] Modern French EIS is controlled by the state and reflects the increased need in conducting both defensive and offensive EI. The strategy of French EI is mostly aggressive including many covert activities. The state supports a moderate level of cooperation between the state EI and private sectors of the economy. Some national economic champions are producers of military and technological products. Small companies are not supported by state EI, and are, therefore, not so aware of their economic security.

3. Economic Intelligence System of Germany

State intelligence is concentrating its effort, according to August Hunning, the chief of Federal Intelligence Service of Germany, on regional conflicts, and proliferation of weapons of mass distraction. The surveillance of economic activities in German companies abroad, terrorism, and illegal immigration are also the areas of German intelligence activities. The state EI has both a defensive and offensive nature.[61] The present German EIS is a web of structures "at the federal, sub-federal, and industrial levels. The German economy has been constructed on the principle of a common national

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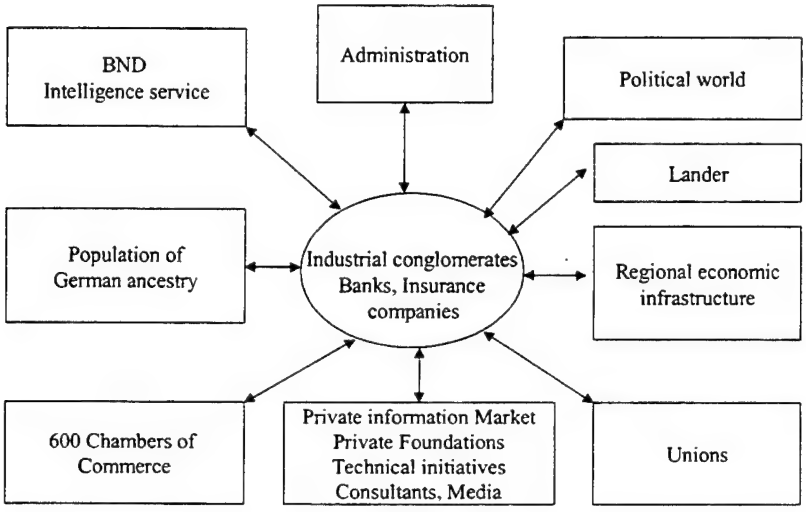
[60] Vladimir V.Gurgyi, Espionage as the Marketing form, Independence Military Survilance. Available [online]: http://www.nvo.ng.ru/spforces/2000-10/13/7_form.html; accessed October 16, 2000, p.2.

[61] Victor Kalashnikov, Interview with August Hunning, the Chief of Federal intelligence service of Germany, Special Services, Independence Military Surveillance, No10 (183), 2000. Available [online]: http://www.nvo.ng.ru/spforces/2000-03-24/inspectaculous.html; accessed May 24, 2000, p.1.

strategic goal recognized by all the major economic actors."[62] The industrial conglomerates substitute the role of the state, as the manager of EI. Nevertheless, the effectiveness of this system stems from the centralized management of EIS. (See Figure 9)



From Ref. [Evan H. Potter, Economic Intelligence and National Security, Carleton University, 1998, 63.]

Figure 9. Economic Intelligence in the German Economy

The high participation of private economy in both state economic activities and economic intelligence is the main feature of German EIS. The Chambers of Commerce act as main centers for the collection and dissemination of economic information. Potter says:

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[62] Evan H.Potter, *Economic Intelligence and National Security,* (Carleton University Press, 1998), p.61.

> German state has no compunction about creating... an economic intelligence system whose objective has been both to systematically penetrate foreign firms and governments, with emphasis on France, Britain, the United States, and Eastern Europe, and to protect Germany from the intelligence systems of these same countries.[63]

The traditional preference to rely on national sources of economic information is the negative feature of German EIS. The private economy is more concerned about conducting EI than the state intelligence community. The culture of total suspicion helps promote the counter EI.

4. Economic Intelligence System of Japan

Japanese EIS became the first sample of a national information-gathering system. The system was one of the advantages that boosted the economy of Japan. The national strategy of EI is offensive. The Japanese cultural approach to the economy stems from the word "*dantotsu,* meaning striving to be the 'best of the best.' ...to achieve superior performance."[64] Next, cultural tradition does not have to destroy each other in the economic competition, and to support sharing of the information. The core of Japanese EIS is based "on a synergy of technological, industrial, and commercial strategies that are inextricable from an offensive-oriented economic intelligence system."[65] The principal feature of Japanese EIS is its high level of centralization that combines both state and private economy. The centralization leads to the high effectiveness of public and private economy. (See Figure 10) Potter identifies five features of Japanese strategic exploitation

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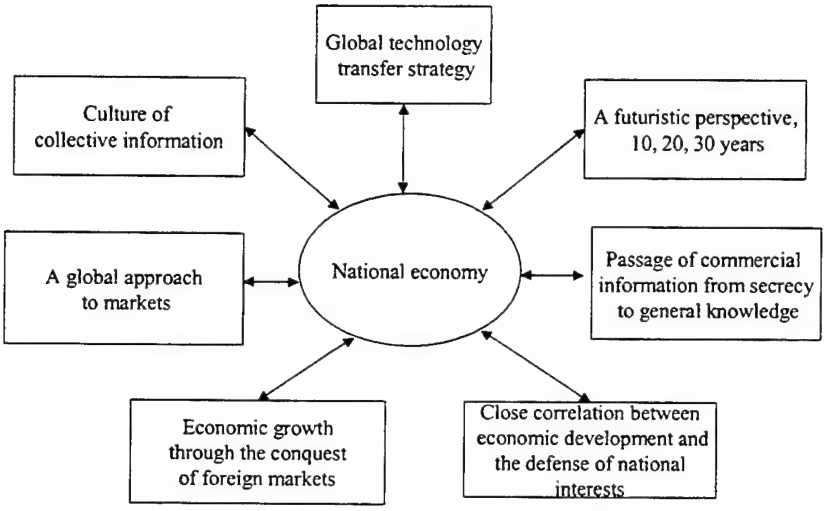
[63] Evan H.Potter, *Economic Intelligence and National Security*, (Carleton University Press, 1998), p.61.

[64] Robert C.Camp, *Benchmarking: The Search for Industry Best Practices that Lead to Superior Performance*, (ASQC Quality Press, Wisconsin, 1993), p.3.

of information: consideration of global and local markets; conquest of national market through cultural arena; preference of long-lasting strategies; connecting national strategy with strategies of Japanese international corporations; and perceptive distribution of information.



From Ref. [Evan H. Potter, Economic Intelligence and National Security, Carleton University, 1998, 59.]

Figure 10. The Role of Culture in the Japanese Economic Intelligence System

The model of EIS reflects a balanced system that involves all elements of governmental and non-governmental EI. The evolution of economy and politics in Japan led to the close cooperation of politicians and businesspersons.

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[65] Evan H.Potter, *Economic Intelligence and National Security,* (Carleton University Press, 1998), p.57.

> As one leading financial journalist said: 'If you do not use politicians, you cannot expand business these days in Japan – that's basic. Businessmen provide politicians with funds, politicians provide businessmen with information. If you wish to develop a department store, a hotel, or a ski resort, you need licenses and permissions and the cooperation of leading political figures in the area. And it always useful to hear that a certain area is slated for development, preferably several years before development starts, when land prices are still low.[66]

Fialka gives many examples of Japanese EI activities in his book "War by the other means."[67] The EIS of Japan puts the national economy into the center of the system with no separation between the state and private economy for dissemination of economic intelligence. Two parts of the economy conduct EI by overt and covert means. Moreover, the developed system of processing and distribution of economic intelligence enforces the national culture of total collection of information, especially economic.

5. Economic Intelligence System of Russian Federation

The Russian EIS is in transition from the Soviet model. The Russian Federal Law of External Intelligence provides the legal base for conducting EI in article 5:

- Supporting the President, Parliament, and Government with appropriate information for making decisions on political, economic, defense, scientific, technical, and environmental issues.
- Supporting economic development, scientific and technical progress, and military-technical development for Russian Federation.[68]

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[66] Downer, Lesley, *The Brothers: The Hidden World of Japan's Richest Family*, (New York: Random House, 1994), p.299.

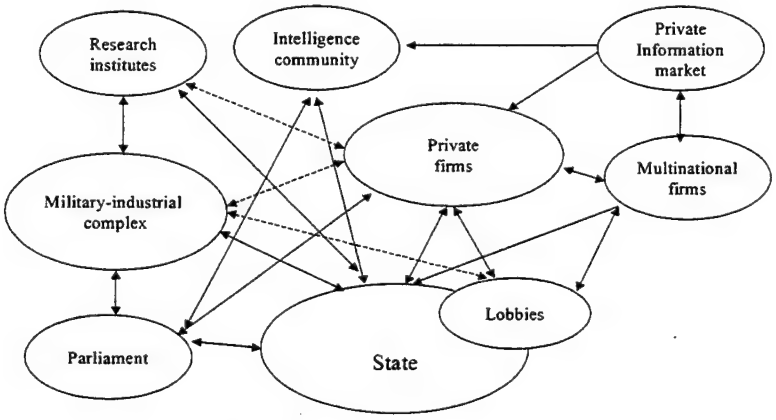
[67] For cases of Japanese EI activities read John J.Fialka, *War by the Other Means*, (W.W.Norton and Company, New York, 1997), pp.41-76.

[68] The Federal Law of Russian Federation, External Intelligence, 1995. Available [online]: http://www.agentura.ru/text/docs/svr/zakon.txt; accessed October 18, 2000, p.3.

The following description of Russian EIS is only the viewpoint of the author on the situation in the Russian Federation and is based on open sources of information. There are two systems of intelligence and economic relations in the state: first, the state intelligence system that has to support the decision-making process, collect scientific and technological information, and protect economical interest both within the state and abroad. The state intelligence suffered a great deal of reorganization and lost its professional core, specialists of intelligence and counterintelligence; second, the outflow of the professionals that helped create a private informational market. An example of such market is the analysis of new literature that reveals many titles dedicated to intelligence, counterintelligence, and economic intelligence. V. Duhov's, Economic Intelligence and Economic Security, Kiev, 1997, and A. Shavaev's, The System of Fighting with Economic Intelligence, Moscow 2000 are designed for managers of the economic departments, security services, and systems of education. In addition, R-System: Introduction into Economic Espionage, Moscow 1997 that gives the analysis of experience of private economic intelligence agency.[69] The books dedicated to intelligence problems were not available before 1991. Nowadays, in the Russian Federation exists a dualistic system of EI. The former is the state system and later is the new EI private sector. These two systems are highly interconnected. Although, they do not have a legal base for cooperation, except de-facto, there are many cases of such cooperation. For example, the site Compromat.ru has proposed many articles about intensive cooperation

[69] All books are available for sale at the web page of company Bambook. http://shop.bambook.com/bamadm/owa/books.firstpage; accessed January 21, 2001.

between many executives, such as B. Berezovskyi and A. Litvinenko, an officer of FSB, with the special security services or their representatives.[70] The period of denationalization of the state property into a private one requires informational support, a system of protection, and access to the state power. Such a mission could be accomplished by the economic intelligence system. There are two poles in the EIS of the Russian Federation. One is the state intelligence community and second one is the private information market. There is the absent of the coordination of the EI in both poles. The low effectiveness of Russian EIS results from decentralization of EI and temporal links between the research institutes, military-industrial complex and lobbies, private enterprises. (See Figure 11)



From Ref. [Proposed by the author.]

Figure 11. Economic Intelligence in the Russian Economy

[70] The collection of articles about Boris Berezovskyi, a Russian business leader Available [online]: http://www.compromat.ru/main/berezovskiy/litvinenko.htm; accessed February 1, 2001.

The future of the Russian EIS is not clear. The team of the Russian president has many representatives of the security intelligence, FSB, and the military intelligence, GRU. (S. Ivanov, Secretary of Russian Federation Security Council; I. Sechin, deputy director of presidential administration; V. Chercussov, a political representative of the President in Northern-Western region; V. Ivanov, deputy director of the presidential administration, a former chief of economic security department of FSB in Leningrad region; Y. Zaostrovtsev, the deputy director of FSB, former director of the Department of Economic Security of FSB; Strelkov, a deputy director of the presidential management Directorate, a former general of SVR). These people have had a big influence on the decision-making process in the Russian Federation.[71]

In conclusion, the Russian EIS is transforming. In the future, it could present a new model of EIS. Today, two active systems of the state and private EI enforce the fast transformation of the Russian economy and society as well.

6. Economic Intelligence System of United Kingdom (UK)

The EIS of UK is designed to protect and pursue the state's economic security goals and the well being of its citizens. The UK government controls EIS. Its Secret Intelligence Service (SIS) consists of a counterintelligence department, MI-5, and an intelligence one, MI-6. These departments' high level of secrecy does not reveal much information. One of the main targets of SIS is economic intelligence. In 1984, P.Midlton, the Secretary of the Finance, succeeded in budgeting MI-6 for collecting economic and

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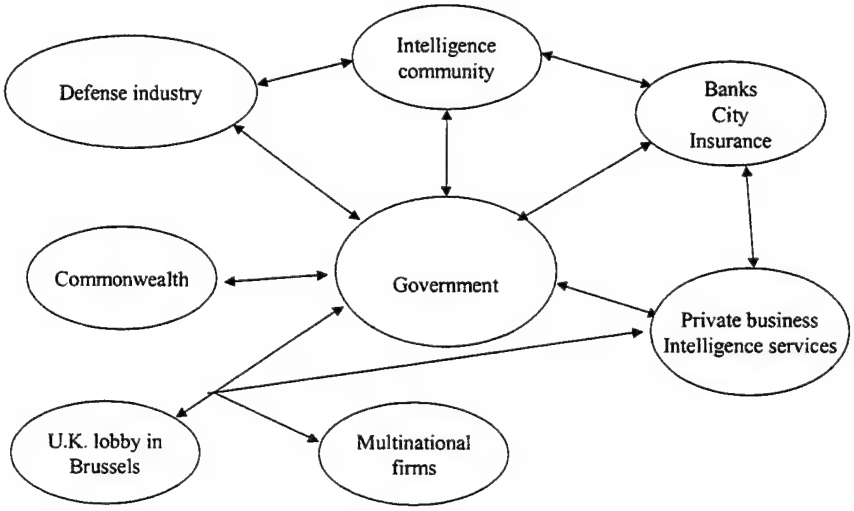
[71] S.Pluznikov and S.Sokolov, *The secret advisers of Putin*. Available [online]: http://www.flb.ru/kvo21.html; accessed February 2, 2001.

commercial information, after which MI-6 started actively collecting technological and economic information. The Committee of External Economic Intelligence controls all EI activities of the intelligence community, while the Deputy Secretary of Finance controls activities of MI-6 in collecting commercial and financial information.[72] The role of the state is a central one, so it results in the high output of British EIS. (See Figure 12)



From Ref. [Evan H. Potter, Economic Intelligence and National Security, Carleton University, 1998, 65.]

Figure 12. Economic Intelligence in the British Economy

Clearly, the British system prefers a more aggressive strategy of EI. The limited natural resources of the UK economy in comparison with US have promoted the

[72] Stanislav Lekarev, Vladimir Maliovanyi, "Gentlemen Broking Law, Special Services", *Independence Military Surveillance*, No41 (164), 1999. Available [online]: http://www.nvo.ng.ru/spforces/1999-10-22/gentlemen.html; accessed May 24, 1999, 8.

development of an intermediate level of cooperation among state and private EI, where the financial institutions and insurance companies are big actors. Therefore, economic security is highly important for the private sector. The EIS of the UK is strong enough to support the strong economic position of its state.

7. Economic Intelligence System of United States (US)

The American system has the biggest intelligence community and competitive intelligence apparatus in the world. The cultural traditions of openness, some gaps in the legal base, and unresolved issue of cooperation between the state and private EI led to the existing decentralized EIS. The state supports a defensive EI strategy. Although an offensive strategy is possible, it is not widely accepted. Potter says, "there may be a cultural resistance to the regular use of unethical and potentially illegal methods of obtaining economic intelligence."[73] He argues about the discrepancy of growth of the US private EI and national economy because the economic growth is slower. He thinks that the ability of US companies to succeed in business depends more on its long-term business cycle, concentration of strategic resources, and cooperation between private and state EI.[74] The big private economic intelligence market does not accomplish the managerial function for EIS. The state has to change this situation, and take control over the US EIS. The state does not need to substitute the activities of the competitive

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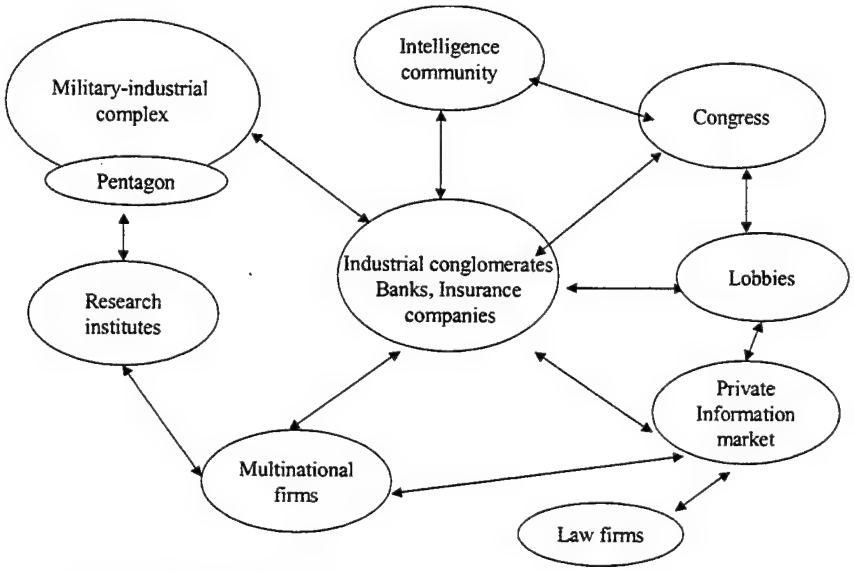
[73] Evan H.Potter, *Economic Intelligence and National Security*, (Carleton University Press, 1998), p.62.

[74] Evan H.Potter, *Economic Intelligence and National Security*, (Carleton University Press, 1998), pp.58-60.

intelligence, but it has to coordinate its activities in accordance with the preferable state intelligence strategy. (See Figure 13)



From Ref. [Evan H. Potter, Economic Intelligence and National Security, Carleton University, 1998, 59.]

Figure 13. Economic Intelligence in the U.S. Economy

The core of EIS in the US consists of the industrial firms, banks, and insurance companies, which have promoted the development of competitive intelligence. However, the fast growth of competitive intelligence cannot enhance the state economic security because the system does not stimulate the support of economic security for medium and small companies. Therefore, the state intelligence community should allocate more resources for conducting EI.

8. Summary

The following propositions outline the possible steps in creating EIS. First, the state has to develop its strategic vision and mission for state intelligence and set the borders for competitive intelligence. Second, the objectives need to be set to transform the strategic vision and EI mission into plans of actions that are connected with time line and resource constraints. A legal framework is an important element for establishing objectives. Third, the state has to establish a coordinator of EIS. It has to provide the control, coordination, and cooperation of all elements of EIS. Each intelligence agency, or organization, has to convert or interpret the state objectives into their strategy for achieving the objectives of EI. Fourth, the implementation and execution of an EI strategy is the phase of action of EIS. Fifth, the evaluation of the performance and correction of the actions of EIS is an important element for achieving the maximum efficiency of EIS.

There are a few preferences for the development of EIS. First, the intelligence community should allocate part of its resources to EI activities achieving the following goals:

- Produce economic intelligence that is not accessible from open sources EI.
- Be capable of producing economic intelligence in wartime condition.
- Coordinate activities of EI for all state consumers that are interested in economic intelligence.
- Collaborate with intelligence communities of other states in EI.
- Conduct comprehensive economic counterintelligence for the state.
- Control the education of personnel for economic intelligence activities.

Second, the organizations of open source economic analysis have to be an integral part of EIS. The state should support their development and growth to achieve the higher economic value of economic intelligence. The use of human intelligence is under specific consideration of the state because it is difficult to set the borders of the state economic and private economic objectives. Therefore, EIS is an adjustable system for specific needs of each state. It can be organized in different ways to get higher performance and satisfaction of the economic informational need.

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IV. CONCLUSION

This research confirms that EI, which has attracted a lot of attention with the end of the Cold War, is a legitimate function of a modern state. The development of modern EI is the means for enhancing national economic security with two types of EI-governmental and non-governmental. The role of EI is secondary in providing economic security for the state, but it is critical for the private sector of economy, especially on the tactical level. All activities of EI are seen in an economic intelligence system providing intelligence support for the decision-making process of any economic issue. Lowenthal gives possible economic issues using US economy:

> Economics can be subdivided into several issues: U.S. economic competitiveness overseas, U.S. trading relations, foreign economic espionage and possible countermeasures, and the intelligence community's ability to forecast major international economic shifts that may have serious consequences for the U.S. economy.[75]

There are no simple answers on appropriate use of economic intelligence, since there are many models of EIS. However, the most prominent are in Canada, France, Germany, Japan, the Russian Federation, and the United States. Each system is designed to accomplish a defensive, offensive strategy, or a combination. The legal frame, cultural roots, economic relations, political agenda of state, educational system are very important elements for establishing and functioning of EIS.

The government is the lead in controlling EIS. It sets the rules, and it makes the decision on the level of cooperation with competitive intelligence and sharing of

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[75] Lowenthal, Mark M., *Itelligence: from secrets to policy* (Washington D.C.: CQ Press, 1999), p.170.

economic intelligence as well. Lowenthal raises the following problems about sharing economic intelligence versus protecting sources of information. For example, the state is responsible for sharing information with international companies that have shareholders in many countries. This issue has not been developed, and it must be resolved individually in each particular case and state.

Economic intelligence is an element of different activities of intelligence to provide for the national security of the state.

> To realize a balanced national security policy designed to promote long-term stability, it is necessary to have an objective estimate of the military, political, economic, and social factors determining the state's capability to provide that security. Such estimate is also crucial for determining the optimum distribution of national security resources and how the military's efforts interrelate with other methods of security maintenance, such as diplomacy and economic policy.[76]

Therefore, EI must be implemented with other components that support the national security system of the state.

The high level of openness of economic information is questionable in the time of war. State intelligence with its unique capabilities can provide the state with a sufficient amount of economic intelligence in wartime.

The following recommendations are suggested for state decision-makers on the issue of EI:

- EI is not the cure for an economic collapse, but it can enhance the state's capabilities in controlling its economy, preventing it from economic pitfalls when combined with other means.

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[76] Boris Jelezov, *Defense Budgeting and Civilian Control of the Military in the Russian Federation,* (Center for Naval Analyses, Alexandra, Virginia), p.12.

- The state has to develop a strategy creating and implementing EI. The execution of the strategy will lead to the creation of EIS.

- The acceptance of competitive intelligence depends on the role of the state in controlling its economy. If the state allows the participation of competitive intelligence, it has to set a strong legal frame for such intelligence. The state must decide on the level of cooperation and informational exchange within EIS.

- The defensive strategy, economic counterintelligence, is a legal action of the state intelligence community. The offensive strategy is an arguable issue because it is not accepted by many states. On the other hand, it can only be one measure for achieving the objectives. It is widely supported by the EIS that must support the economies with limited resources.

- The cooperation among states' intelligence communities or EIS is not a well-developed issue. Cooperation is possible when the goals are common both economy and security.

EIS is a unique socio-political organization of state. The developed, well-coordinated system can enhance national economic security and support maintenance of citizens' well being.

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